GOROLENKO, M. V., Professor

"Geographic Distribution of Certain Parasitic Vegetations in China," Lomonsov Lectures in 1956, Vest. Mosk. U., Physico Math and Natural Sciences Series, 4, No. 6, pp 147-160, 1956, Biological Soil Faculty

Translation U-3,054,363

GORCMOSOV, Mikhail Solomonovich. (Cand. Med. Sci.)

"At the Twelfth All-Union Congress of Hygienists, Epidemiologists, Microbiologists, and Specialists in Infectious Diseases," Gig. i San., No. 1, 1948; Mbr., Sci. Sect., Inst. General & Communal Hygiene, Dept. Hygience, Microbiology & Epidemiology, Acad. Med. Sci. USSR, -1946-.

USSR/Medicine - Hygiene and Sanitation Apr 1948
Medicine - Societies, Medical

"With the Directors of the All-Union Scientific Society of Hygienists," M. S. Goromosov, 1 p

"Gig i San" No 4

First meeting of this new society was held 21 Oct 1947. N. A. Semashko was elected chairman, and A. N. Sysin, deputy chairman. Lists those selected to the presidium of the society. Another meeting was held 12 Dec 1947 at which more members were elected to the society. On 30 Dec 1947 the Moscow Branch was established. Lists members admitted at that time.

65T76

GORCHOSOV, M.S.

"All-Union Thematic Conference on Community Hygiene," Gig.i San, No. 6, 1948;

[redacted] 171T74

GORCHOSOV, M.S.

"All-Union Thematic Conference on Community Hygiene," Gig.i San, No. 6, 1948;

GOROMOSOV, M.S.

"Meeting of the All-Union Scientific Society of Hygienists," Gig. I San. No. 9, 1949;

GOROMOSOV, M. S.

GOROMOSOV, M. S. and Sysin, A. N.

Medicine

Spravochnik sanitarnogo vracha.
Moscow, Gosudarstvonnoe Izdatel'stvo Meditsinskoy Literatury, 1950.
pp. 579, illus., diags., tables, bibliogs.; 23 x 15

LXIII

GOROMOSOV, M. S.

PA 171T74

USSR/Medicine - Hygiene and Sanitation Apr 50
Medical Societies

"News From Branches of All-Union Scientific Society of Hygienists (July-December 1949)," M. S. Goromosov

"Gig i San" No 4, pp 57, 58

Discusses most interesting reports from the Riga, Crimean, Tomsk, Gor'kiy, Uzbek, Molotov, Kiev, Moldavian, and Leningrad Branches of the Society; e.g., sanitation problems in reconstruction of Riga, water supply systems for large cities (Gor'kiy) consolidating hospitals and polyclinics, children's nervous afflictions (Molotov) and microclimate of the Kiev Polyclinic [sic] (Kiev).

[redacted]

171T74

GORONOSOV, M. S.

PA 170T71

USSR/Medicine - Hygiene and Sanitation
Societies, Medical
Aug 50

"Activities of the All-Union Scientific Society of Hygienists (Material Submitted to the Administration in January and February 1950)," M. S. Goromosov

"Gig i San" No 8, pp 57-58

Mentions briefly some of the reports submitted at Kursk, Irkutsk, Tomsk, Khar'kov, Rostov, L'vov, and Sverdlovsk branches of the Society, and some of the meetings of these branches.

170T71

SYSIN, Aleksey Nikolayevich, 1879-, red.; GOROMOSOV, M.S., red.

[Reference manual for the physician in public health work] Spravochnik sanitarnogo vracha, pod red. A.N. Sysina i M.S. Goromosova. [4.izd.] Moskva, Medgiz, 1950. (MIRA 11:10)
(PUBLIC HEALTH)

Meteorological Abst.
Vol. 4 No. 2
Feb. 1953
Climatology and
Bioclimatology

4.2-247

[redacted]:61:551.524

Gormosov, M. S., **Mikroklimat zhilishch i ego gigienicheskoe izuchenie.** [Microclimate of dwellings and its investigation.] *Gigiena i Sanitariia*, 8:3–11, Aug. 1951. 2 tables. D.C.—Soviet work on the comfort temperatures of dwellings in various climatic regions of the USSR is reviewed; the physiological basis of temperature regulation is discussed briefly; and names of Soviet investigators studying comfort temperatures are listed. The results of a questionnaire study of optimum winter temperatures in diverse climatic zones (I—cold; II—moderately cold; III—temperate; IV—warm; V—hot) are given. There were 3722 replies received from a population of both sexes aged 18 to 65 years. The winter comfort temperatures were highest in the cooler zones and lowest in the warmer zones; below 20°C in the hot zones and between 20–22°C in the cold zones. The distribution of winter temperatures within dwellings situated in these climatic zones corresponded to the comfort questionnaire data. Comfort indoor temperatures for residences established in various zones of the USSR are given; they are viz: I—21–22°C; II—18–21°C; III—18–20°C; IV—17–19°C; V—17–18°C. [illegible] results of experimental study of effect of atmospheric temperature upon skin temperature and electrical conductivity of skin are given. *Subject Headings:* **1. Indoor climates 2. Indoor temperatures 3. Physiological climatology 4. Comfort climate 5. U.S.S.R.**—*I. L. D.*

GOROMOSOV, M.S.; TSIPER, N.A.; UGRYUMOVA, Ye.K.

Temperature limits in living quarters and public buildings. Gig. sanit. Moskva No.1:10-15 Jan 52. (CIML 21:4)

1. Of the Institute of General and Communal Hygiene of the Academy of Medical Sciences USSR.

GOROMOSOV, M.S.; KLENOVA, Ye. V.

Public Health - Societies

Activities of the All-Union Scientific Society of Hygienists; from data which reached the administration during the first quarter of 1952. Gig. i san., No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED

GOROMOSOV, M. S. and KLENOVA, Ye. V.

"Activities of the USSR All-Union Scientific Society of Hygienists," Gig. i San., No.9, pp 51-53, 1952

Translation W-25335, 24 Feb 53

1. GOROMOSOV, M. S.; KLENOVA, E. V.

2. USSR (600)

4. Sanitation

7. Activities of local branches of the All-Union Society of Hygienists (according to data submitted to the administrative office in January 1953.) Gig. i san. No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

GOROMOSOV, M.S.; KLENOVA, Ye.V.

Activities of the All-Union Scientific Society of hygienists (from materials which reached the Society's Board of Directors in February-March, 1953). Gig.i san. no.6:56-57 Je '53. (MLRA 6:6)
(Public health)

SYSIN, Aleksey Nikolayevich, 1879- , redactor; GOROMOSOV, M.S., redaktor.

[Problems of public health in the hot climate of Central Asia; collected scientific works] Voprosy kommunal'noi gigieny v usloviiakh zharkogo klimata srednei Azii; sbornik nauchnykh trudov. Pod red. A.N.Sysina i M.S.Goromosova. Moskva, Medgiz, 1954. 164 p. (MLRA 8:1)
(Asia, Central--Public health)

GOROMOSOV, M.S.

Hygienic principles of microclimatic standards for homes in various climatic zones. Opyt izuch.reg.fiziol.funk. no.3:162-170 '54.
(MLRA 8:12)

1. Institut obshchey i kommunal'noy gigiyeny Akademii meditsinskikh nauk SSSR.

(BODY TEMPERATURE) (DWELLINGS--HEATING AND VENTILATION)

GOROMOSOV, M.S.; TSIPER, N.A.

Permissible limits of artificial cooling in living quarters during the summer. Gig. i san. no.7:8-14 Jl '54. (MLRA 7:8)

1. Iz Instituta obshchey i kommunal'noy gigiyeny AMN SSSR.
(VENTILATION,
*air conditioning, permissible limits of cooling of living quarters during summer)

GOROMOSOV, M.S.

Unified plenary session of the administrations of the All-Union and Ukrainian Societies of Hygienists, 21-23 April, 1954. Gig. i san. no.8:56-59 Ag '54. (MLRA 7:9)

(HYGIENE, in Russia, conf.)

Goromosov, M. S.

AID P - 2487

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 16/19

Authors : Goromosov, M. S., Bobrov, L. S., Galanin, N. F., Shnitnikova, Z. Z., Ivachev, V. V.

Title : Activities of the All-Union Scientific Society of Hygienists

Periodical : Gig. i san., 7, 56-58, Jl 1955

Abstract : An account of the Conference of the Board of the above society on February 16, 1955, and of the activities of the Moscow, Leningrad and Kazan branches in 1954-1955.

Institution: None

Submitted : No date

GOROMOSOV, M.S.; TSIPER, N.A.

Hygienic evaluation of radiant heating. Vod. i san.tekh.no.1:28-31 Ja '57. (MLRA 10:3)
(Radiant heating)

GOROMOSOV, M.S.

GOROMOSOV, M.S., kand.med.nauk

Housing and health. Zdorov'e 3 no.12:1-3 D '57. (MIRA 11:1)
(DOMESTIC ENGINEERING)

Goromosov, M.S.

1390. THE HYGIENIC EVALUATION OF THE RADIATION HEATING SYSTEM (Russian text) - Goromosov M.S. and Tsiper N.A. - GIGIENA 1957, 6 (20-28) Graphs 3 Tables 5

The radiation heating system has been fully approved from the hygienic point of view. Under its conditions the organism gives off less radiating heat to the environment, the thermal condition of the body is greatly improved and yet it is possible to lower the room temperature in winter (1-2° C.). In dwelling houses it is more convenient to place the radiating panels on the walls, in the hospitals on the ceiling and in children's establishments on the floor. The temperature on the surface of panels should not exceed 40-45° C. on the walls and 25-30° C. on the floor and ceiling.

GOROMOSOV, M.S.

GOROMOSOV, M.S., kand.med.nauk; SHAFIR, A.I., prof.

Soviet residential hygiene; 40th anniversary of the Great October Socialist Revolution. Gig. i san. 22 no.10:26-32 O '57. (MIRA 10:12)

(HOUSING
in Russia, progr. in sanitation & hygienic aspects)
(SANITATION,
in housing develop. in Russia, progr.)

GORMOSOV, M.S., kand.med.nauk

Assessment of general indications of the effect on the organism of various meteorological factors. Gig. i san. 23 no.7:66-71 Jl '58. (MIRA 12:1)

1. Iz Instituta obshchey i kommunal'noy gigiyeny im. A.N. Sysina AMN SSSR.

(WEATHER
biol. eff. of meteorol. factors, review (Rus))

GOROMOSOV, M. S., Doc Med Sci (diss) -- "The microclimate of residence dwellings and providing hygienic standards for it (Hygienic principles for standards for the microclimate of residence dwellings in various climatic regions of the USSR)". Moscow, 1959. 20 pp (Acad Med Sci USSR), 200 copies (KL, No 25, 1959, 138)

GOROMOSOV, M. S., PERSHIN, A. A., UVAROV, M. M.

"Postwar Residential Construction and Hygienic Standards in the Field of Standard Planning of Dwellings."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

ZHDANOV, V.M., prof., obshchiy red.; BOL'SHAKOVA, M.D., red. (Moskva); GOROMOSOV, M.S., red. (Moskva); GROMBAKH, S.M., red. (Moskva); KLEMOVA, Ye.V., red. (Moskva); ORLOV, N.I., prof., red. (Moskva); RYABOV, V.N., red. (Moskva); RYAZANOV, V.A., prof., red. (Moskva); CHERKINSKIY, S.N., prof., red. (Moskva); KHRISTOV, L.N., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Proceedings of the Thirteenth All-Union Congress of Hygienists, Epidemiologists, Microbiologists, and Infectious Disease Specialists] Trudy Vsesoiuznogo s"ezda gigienistov, epidemiologov, mikrobiologov i infektsionistov. Vol.1. [Problems of hygiene] Voprosy gigieny. 1959. 727 p. (MIRA 12:12)

1. Vsesoyuznyy s"yezd gigiyenistov, epidemiologov, mikrobiologov i infektsionistov. 13th, Moscow, 1956. 2. Zamestitel' ministra zdravookhraneniya SSSR (for Zhdanov).
(PUBLIC HEALTH--CONGRESSES)

GOROMOSOV, M.S., kand.med.nauk

Decisions of the 21th Congress of the CPSU on residential dwelling hygiene. Gig. i san. 24 no.3:3-8 Mr '59. (MIRA 12:5)

(HOUSING, hyg. in Russia (Rus))

GOROMOSOV, Mikhail Solomonovich for Doc Med Sci on the basis of dissertation defended 26 June 59 in Council of the Department of Hygiene, Microbiology, and Epidemiology, Acad Med Sci USSR, entitled "The microclimate of dwellings and its hygienic normalization (the hygienic substantiation for normalizing the microclimate of dwellings in various climatic regions of the USSR)." (BMViSSO USSR, 1-61, 20)

GOROMOSOV, M.S.; TSIPER, M.A.; KITAYEVA, N.N.

Establishing hygienic norms for air conditioning in motion-picture theaters. Vod. i san. tekh. no.11:29-32 N '60. (MIRA 13:11)
(Motion-picture theaters—Air conditioning)

TSIPER, N.A., kand.tekhn.nauk; GOROMOSOV, M.S., kand.med.nauk

Hygienic evaluation of a central system of air heating. Gig. i san. 25 no.7:8-13 Jl '60. (MIRA 14:5)

1. Iz Instituta obshchey i kommunal'noy gigiyeny imeni A.N. Sysina AMN SSSR.

(HOT-AIR HEATING)

BERYUSHEV, K.G., dotsent; GALANIN, N.F., prof.; GURVICH, L.S., doktor med. nauk; NOVIKOV, Yu.V., kand. med. nauk; RYAZANOV, V.A., prof.; CHERKINSKIY, S.N., prof.; KROTKOV, F.G., prof., otv. red.; GOROMOSOV, M.S., doktor med. nauk, red.; BUSHTUYEVA, K.A., red.; ZUYEVA, N.K., tekhn. red.

[Manual on communal hygiene] Rukovodstvo po kommunal'noi gigiene. Otv.red.F.G.Krotkov. Moskva, Medgiz. Vol.1. [Communal hygiene] Kommunal'naia gigiena. Red.V.A.Riazanov. 1961. 707 p. (MIRA 15:1)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Galanin, Cherkinskiy). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Krotkov).

(CLIMATOLOGY, MEDICAL) (AIR—POLLUTION)
(CITY PLANNING—HYGIENIC ASPECTS)

IZRAEL'SON, Z.I.; BOL'SHAKOVA, M.D.; GOROMOSOV, M.S.; KROTKOV, F.G.; VOROB'YEVA, R.S. LETAVET, A.A.; MOGILEVSKAYA, O.Ya.; KHOTSYANOV, L.K.; CHERKINSKIY, S.N.; YANIN, L.V.

In memory of E.V.Klenova. Gig. i san. 26 no.10:116 O '61. (MIRA 15:5)

(KLENOVA, ELENA VASIL'EVNA, d. 1961)

BELYAYEV, I.I., prof.; BLIOKH, S.S., kand. med. nauk; GABOVICH, R.D., prof.; GORBOV, V.A., dots.; ZHABOTINSKIY, V.M., prof.; ZASLAVSKAYA, R.M., kand. med. nauk; KIBAL'CHICH, I.A., kand. med. nauk; KROTKOV, F.G., prof.; MOGILEVSKIY, Ya.A., kand. med. nauk[deceased]; TRAKHTMAN, N.N., dots.; CHERKINSKIY, S.N., prof.; GOROMOSOV, M.S., doktor med. nauk, red.; RYAZANOV, V.A., prof., red.; BUSHTUYEVA, K.A., dots., red.; SELESKIRIDI, I.G., dots., red.; OSTROVERKHOV, G.Ye., prof., glav. red.; PETROVA, N.K., tekhn. red.

[Manual on communal hygiene]Rukovodstvo po kommunal'noi gigiene. Moskva, Medgiz. Vol.2. 1962. 763 p. (MIRA 15:12)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Krotkov). 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Cherkinskiy, Ryazanov).
(SOIL DISINFECTION) (WATER SUPPLY)

GOROMOSOV, Mikhail Solomonovich; TRAKHTMAN, N.N., red.; PRONINA, N.D., tekhn. red.

[Microclimate of dwellings and its hygienic normalization] Mikroklimat zhilishch i ego gigienicheskoe normirovanie. Moskva, Medgiz, 1963. 132 p. (MIRA 16:6)
(Dwellings--Hygienic aspects)

GOROMOSOV, M.S., red.; GROMBAKH, S.M., red.; ZHDANOV, V.M., red.; POKROVSKIY, A.A., red.; KROTKOV, F.G., red.; LETAVET, A.A., red.; LITVINOV, N.N., red.; RYAZANOV, V.A., red.; URAZAYEV, N.M., red.; CHERKINSKIY, S.N., red.; KHAMIDULLIN, R.S., red.

[Transactions of the 14th All-Union Congress of Hygienists and Public Health Physicians] Trudy Vsesoiuznogo z"ezda gigienistov i sanitarnykh vrachei, 14. Moskva, Medgiz, 1963. 322 p. (MIRA 18:2)

1. Vsesoyuznyy s"yezd gigiyenistov i sanitarnykh vrachey. 14th. 2. Glavnyy uchenyy sekretar' AMN SSSR (for Zhdanov).

GOROMOSOV, M.S., doktor med. nauk; DANTSIG, N.M., prof.; KYUPAR, A.I., sanit. vrach; MINKH, A.A., prof.; PROKOF'YEV, A.P., dots.; SILIVANIK, K.Ye., doktor med. nauk [deceased]; UVAROV, M.M., kand. med. nauk; SHAFIR, A.I., prof.; SHTREYS, A.I., prof.; KROTKOV, F.G., prof., otv. red.; SELESKERIDI, I.G., red.; ROMANOVA, Z.A., tekhn. red.; MIRONOVA, A.M., tekhn. red.

[Manual on communal hygiene] Rukovodstvo po kommunal'noi gigiene. Moskva, Medgiz. Vol.3.[Hygiene of residential and public buildings] Gigiena zhilykh i obshchestvennykh zdanii. Red. toma Goromosov i A.I.Shafir. 1963. 486 p. (MIRA 17:2)

1. Deystvitel'nyy chlen AMN SSSR (for Krotkov). 2. Chlen-korrespondent AMN SSSR (for Minkh).

GOROMOSOVA, ELEONORA

ROMANIA

MARCOVICI, M., MD; GOROMOSOVA, Eleonora, MD; GAGIU, Teodora, Technical Assistant.

"Dr. I. Cantacuzino" Institute (Institutul "Dr. I. Cantacuzino"), Bucharest - (for all)

Bucharest, Viata Medicala, No 3, 1 Feb 63, pp 169-174.

"Serological Study on the Efficacy of Attenuated Poliomyelitis Vaccine and Comments on the Efficacy of the Salk Vaccine."

(3)

MARCOVICI, M.; GORCMOSOVA, Eleonora; GAGIU, Teodora, assistante technique.

Contribution to the study of poliomyelitis eradication in the city of Bucharest. Arch. roum. path. exp. microbiol. 23 no.3: 731-736 S'63

1. Travail de l'Institut "Dr.I.Cantacuzino"; Service des Entero-viroses., Bucarest.

BRAYKO, V.D.; GOROMOSOVA, S.A.; PITSYK, G.K.; FEDORINA, A.I.

Dynamics of zooplankton in the Black Sea according to observations made during 1956-1958. Trudy Azchernirо no.18:29-49 '60. (MIRA 14:10)

(Black Sea—Zooplankton)

GOROMOSOVA, S.A.

Dynamics of zooplankton of the northwestern part of the Black Sea and some of its characteristics. Vop. ekol. 5:40-41 '62.
(MIRA 16:6)

1. Azovo-Chernomorskiy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, Kerch.
(Black Sea--Zooplankton)

GORON, I., doktor tekhn.nauk

His voice was preserved forever. Radio no.4:9-10 Ap '60.
(MIRA 13:8)

(Recording instruments)
(Lenin, Vladimir Il'ich, 1870-1924)

GORON, I.F.

"Soviet Designs of Apparatus for Magnetic Sound Recording." Izv.Akad.Nauk, SSSR Ser.Fiz., 13 (No.6) 662-5, 1949. In Russian.

Goron, I.F.

AUTHOR: Goron, I.F. Doctor of Technical Sciences SOV/107-58-11-22/40

TITLE: The "Detectability" of Distortions (O zametnosti iskazheniy)

PERIODICAL: Radio, 1958, Nr 11, pp 30-32 (USSR)

ABSTRACT: In this article it is stated that although it is possible to eliminate all noticeable distortion from modern radio equipment, the cost would be too great for this to be done on a mass scale. It is therefore necessary to permit a certain degree of distortion, and to establish norms for the distortion occurring in various elements of the sound channels. This is done by the method of so-called subjective-statistical estimation by a body of experts. The testing unit (Figure 1) consists of a high-quality magnetic sound recorder, an amplifier and a wide-band acoustic assembly (the conditional non-distorting channel, in which all forms of "natural" distortion are negligible), into which elements, creating a variable degree of distortion, can be included. The magnetic sound recorder reproduces with great exactness excerpts from various musical works, 3 times without distortion, 3 times with distortion. The results are compared by the experts, and the "detectability" of the distortion is expressed as the relationship between the number of experts who noticed the difference

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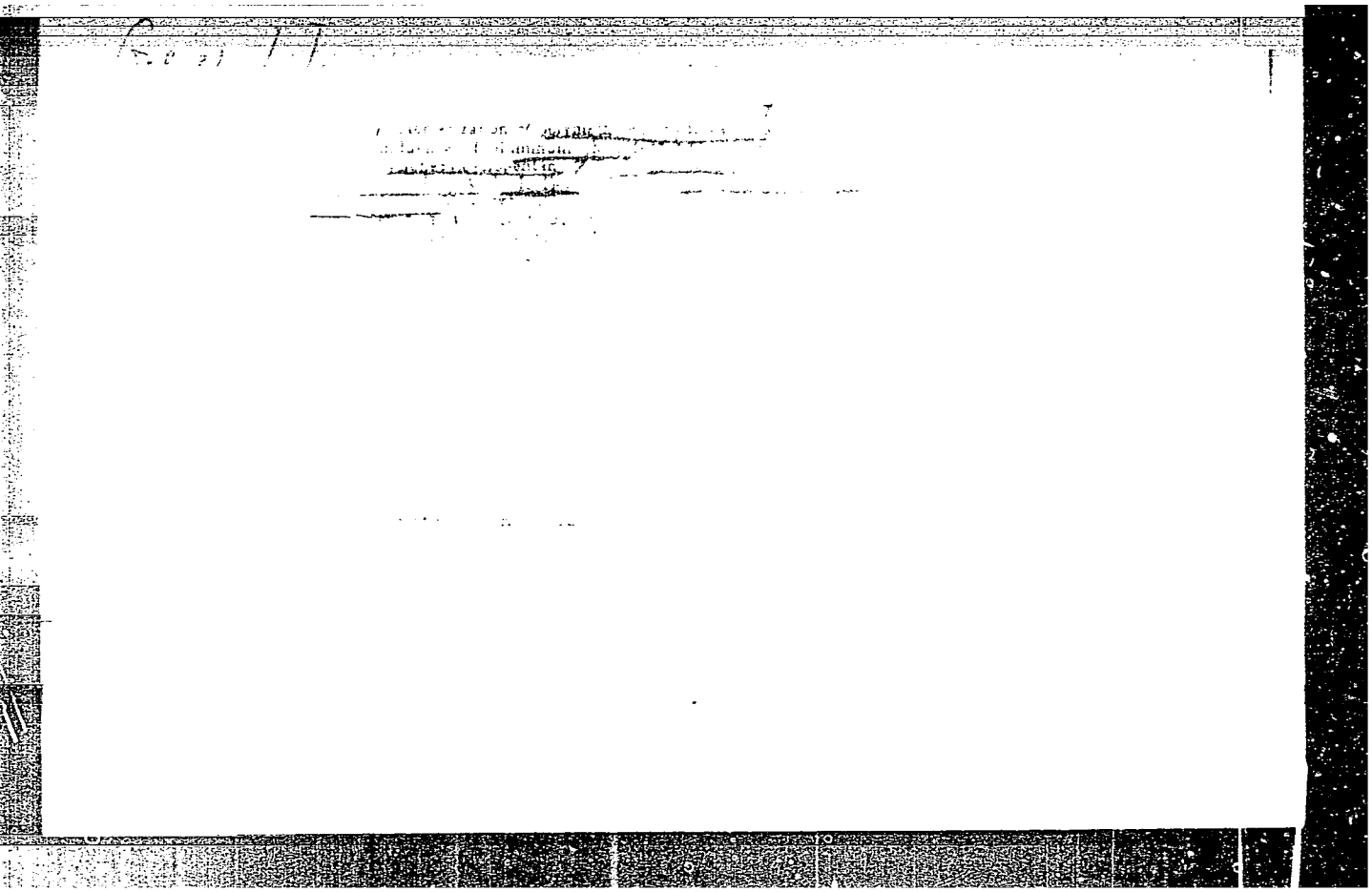
between the distorted and non-distorted versions, and the total number of experts. "Curves of detectability" (Figures 2,3 and 4) are compiled on the basis of many such tests. Various classes of radio broadcasting apparatus, each having its own permissible degree of distortion, have to be set up: such a system of classification is illustrated in Figure 5. This article describes some of the great scientific research work being carried out by the collectives of the Laboratory of Acoustics of the NII of the Ministry of Communications, and the Chairs of Broadcasting and Acoustics of the Moscow and Leningrad Electrotechnical Institutes of Communications. There are 4 graphs and 1 block-diagram.



GORON, I./E.

Radioveshchanie. /Radio broadcasting/. Utverzhdeno v kachestve uchebnika dlia vtuzov sviazi. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1944. 362 p. illus.
Bibliography: p. 358-/360/. DLC: TK6570.B7G67
NN

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

GORON, I. Ye, PROF.: Dr. Technical Sci.; Electrical Eng.

"Restoration of Recordings of V. I. Lenin's Speeches," Radiotekh., 4, No. 2, 1949.

GORON I..YE. PROF. PA 44/49T96

USSR/Radio Transmission Lines May 49
Radio Transmission, Multichannel

"Multiprogram Broadcasting Using Conductors," Prof I. Ye. Goron, Dr Tech Sci, 1 p

"Radio" No 5

Chief drawback to wired radiofication is that listener has no choice of programs. In 1940 - 1941, Leningrad Div, Com Sci Res Inst of Communications, and Moscow Inst of Communication Engineers experimented in using transmission and lighting circuits to transmit more than one program. Circuits tested on a Moscow

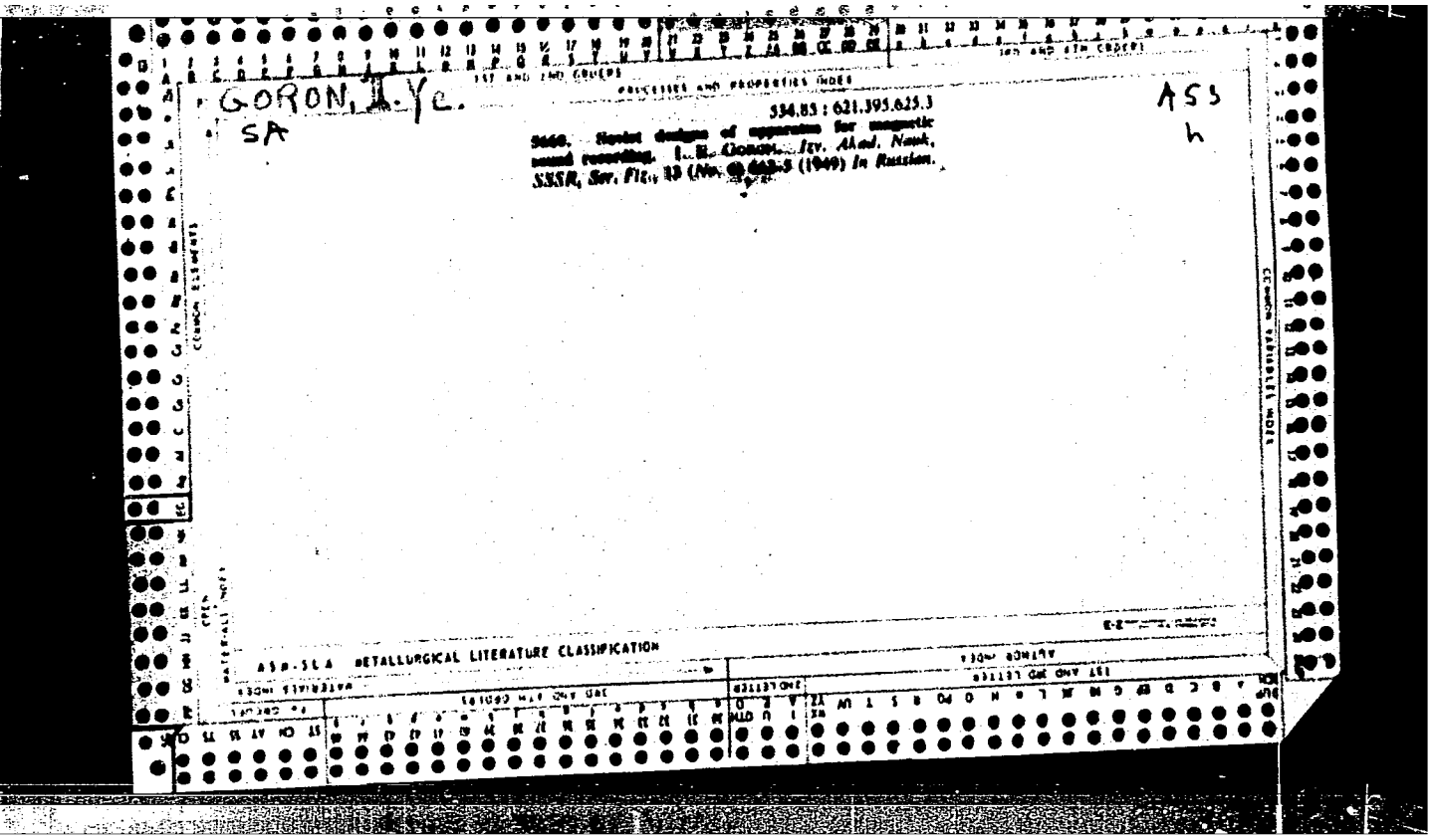
44/49T96

USSR/Radio Transmission Lines (Contd) May 49

lighting circuit served by one transformer substation showed good results.

B Mor., Editorial Bd., Radiotekhnika,-1948-49.

44/49T96



GoRon, I. Yc -

USSR/ Miscellaneous - Radio amateurs

Card 1/1 Pub. 89 - 6/31

Authors : Siforov, V., Correspondent-Member of the Academy of Sciences of the USSR; Prof. Goron, I., Dr. of Engineering Sci; and Kontorin, N., Radio-center opr.

Title : They started their work as radio amateurs

Periodical : Radio 11, 11-12, Nov 1954

Abstract : The following three articles are given under this title: 1. "Search for New Trends in Science and Practice", by V. Siforov; 2. "My First Receiving Set", by I. Goron, and 3. "A Favorite Occupation," by N. Kontorin. The personal experiences of the authors during the early days of radio are recounted.

Institution : ...

Submitted : ...

GORON, I. YE., and RIMSKIY-KORSAKOV, A. V.

"Investigation of the Manifestation of Distortions Characteristic of a Radiobroadcast Channel."

paper presented at 4th All- Union Acoustical Conf., Moscow, 26 May - 4 Jun 58

GORON, I. Ye.

PHASE I BOOK EXPLOITATION SOV/3668

USSR. Ministerstvo svyazi. Tekhnicheskoye upravleniye

Issledovaniye zametnosti iskazheniy v radioveshchatel'nykh kanalakh; informatsionnyy sbornik (Study of the Discernibility of Distortions in Radio Broadcasting Channels; Collection of Information Articles) Moscow, Svyaz'izdat, 1959. 120 p. (Series: Tekhnika svyazi) 10,200 copies printed.

Resp. Ed.: I.Ye. Goron; Ed.: L.I. Vengrenyuk; Tech. Ed.: K.G. Markoch.

PURPOSE: This collection of articles is intended for broadcast specialists and persons concerned with the design and manufacture of broadcasting equipment.

COVERAGE: This collection is based on studies made at various institutes of the Ministry of Communications USSR, in the field of quality indices of radio broadcasting channels. The major part of this research was done jointly under the general scientific supervision of Professor I.Ye. Goron, by the Scientific Research

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Study of the Discernibility (Cont.) SOV/3668

Institute of the Ministry and the Departments of Radio Broadcasting and Acoustics of the Moscow and Leningrad Institutes of Communications. The Nauchno-issledovatel'skiy institut gorodskoy i sel'skoy telefonnoy svyazi Ministerstva svyazi (Scientific Research Institute of Urban and Rural Telephone Communication of the Ministry of Communications) in Leningrad participated in the development of some of the research equipment. The studies aimed at establishing a connection between an objective rating of various distortions and interference occuring in broadcasting channels, and their subjective perception. In accordance with this aim, investigations were conducted by applying the method of subjective statistical examination. The instrumentation of this study necessitated development of a complete set of equipment which permitted practically undistorted sound reproduction and injection into the channel of measured amounts of distortions and interference. The collection contains 11 articles covering the basic trends of the study. The materials compiled in this book have been used as a basis for working out the departmental technical specifications of the Ministry of Communications. "Kanaly radioveshchatel'nyye.. Normy na osnovnyye kachestvennyye pokazateli"

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Study of the Discernibility (Cont.) SOV/3668

("Broadcast Channels. Standards of Basic Quality Indices"). No personalities are mentioned. References accompany four articles.

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of miscellaneous fragments of recorded programs through a broad-band distortionless channel (higher class) and then through a narrow-band channel (third class). The two remaining classes were investigated at the (Leningrad Electrical Institute of Communications) Leningradskiy Elektrotekhnicheskiy Institut Svyazi. The results of the study are shown in 13 graphs. There are 21 references: 12 Soviet, 3 German, 5 English, and 1 Italian.

Kuz'mina, N.S., I.B. Stanislavskaya, and G.B. Askinazi. Interference Effect (Background Noise) on Nonlinear Distortion Audibility 85

The authors studied the audibility of complex disturbances. The authors conclude that an irregularity of frequency characteristic involving either peaks, or a combination of peaks and dips, at total irregularity of 10-20 db, has no practical effect on nonlinear distortion and noise discernibility. The results obtained are presented in 17 graphs.

Postnikova, O.A., and I.B. Stanislavakaya. Effect of Frequency Characteristic Irregularity on the Perception of Nonlinear Distortion and Noise 91

Typical of broadcast channels is a combination of frequency and

Study of the Discernibility (Cont.) SOV/3668

nonlinear distortion, as well as noise. Frequency distortion in the form of response curve irregularity is introduced basically by the initial link (microphone) and the terminal link (speaker) of the channel. Noise is introduced by the intermediate links. Intermediate and terminal links of the channel are sources of nonlinear distortion. The experimental channel designed by the authors simulated the above conditions. It was possible to plot 2 curves illustrating the distortion examined with a given irregularity and without it, and also to establish effect of frequency characteristic on distortion discernibility.

Genzel', G.S. Study of Crosstalk Interference Audibility 98
The author studies audio perception of interference against the background of basic broadcast programs. The testing channel designed for that purpose permits mixing the simulated interference with basic program signals at various crosstalk levels. The experimental channel was designed by Engineers V.N. Barburkin, L.L. Grigorovitch, Ye.T. Plotkin, and G.S. Pol'ferova of the Department of Broadcasting and Acoustics of Leningrad Electrotechnical Institute of Communications. The results of the

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experiments are presented in 2 graphs.

Askinazi, G.B. Mathematical Methods of Processing Data Examined by the Experts 103

The study of distortion and interference discernibility in broadcast channels was made with the aid of subjective opinion of experts. In order to eliminate individual differences between the experts' ability to observe distortions, and obtain data depending only upon typical properties of the human ear, the method of mathematical analysis of statistical data was applied to the results of the observations made by large numbers of participants in the experiments. The quantity sought was the discernibility of a given distortion determined by typical and not by individual properties of the human ear.

AVAILABLE: Library of Congress

JP/rem/jb
7-25-60

Card 8/8

MINTS, A.L., akademik, glavnyy red.; BURDUN, G.D., red.; VOL'PERT, A.R., red.; GORON, I.Ye., red.; GUTENMAKHER, L.I., prof., red.; GRODNEV, I.I., red.; DEVYATKOV, N.D., red.; ZHEKULIN, L.A., red.; KATAYEV, S.I., red.; MEYMAN, M.S., red.; SIFOROV, V.I., red.; CHISTYAKOV, N.I., red.; GESSEN, L.V., red.izd-va; MARKOVICH, S.G., tekhn.red.

[One hundredth anniversary of the birth of A.S.Popov; jubilee session] 100-let so dnia rozhdeniia A.S.Popova; iubileinaia sessiia. Moskva, Izd-vo Akad.nauk SSSR, 1960. 312 p. (MIRA 14:1)

1. Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi. (Information theory)

.9,7910
6,9300

S/108/61/016/001/006/007
B010/B077

AUTHORS: Goron, I. Ye., Member of the Society, Drobyshev, Yu. P., Member of the Society

TITLE: Information Density of Wide-band Signal Recorders

PERIODICAL: Radiotekhnika, 1961, Vol. 16, No. 1, pp. 59 - 66

TEXT: In order to characterize different types of magnetic recording methods for video signals or other wide-band signals, the authors introduce an "information density" ν which is formed by parameters of the signal, the tape, and the recording method, and is defined as the information quantity I stored per unit surface of the tape. If ΔF stands for the signal bandwidth, T for the signal period, m for the level, then, on account of the equation $I = 2\Delta FT \log_2 m$, the information density is found to be (I) $\nu = 2\Delta FT \log_2 m/S$; S denotes the area of tape, for which $S = N(b + d)v_g T_o$ holds; N denotes the number of tracks, b the track width, d the track spacing, v_g the tape velocity, T_o the recording time

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of one track. (I) depends on the method of recording: According to the A,A' method (cf. Table 1), the total signal is recorded on one track only (old RCA method). Here, ν equals $\frac{2\Delta F \log_2 m}{(b + d)v_g}$. According to the B,B' method, the total signal bandwidth ΔF is divided into N subranges which are recorded separately on N tracks (BBC method, England); here, ν equals $\frac{2\Delta f \log_2 m}{(b + d)v_g}$. The V' method is based on the following principles: a) a total signal period T is divided into N time intervals of the duration t_i which are successively recorded on N tracks (Ampex method which goes back to K. L. Isupov and I. S. Rabinovich); ν is the same as found for the A,A' method; b) the signal is represented by a sequence of pulses according to the theorem of Kotel'nikov, which are recorded alternately on N tracks (Bing Crosby method, USA); ν is the same as for B,B'. Table 1 shows numerical values, and it is easily seen that bandwidth and frequency of a track channel greatly influence the value of

ν. Very good values for ν are obtained if $f_v/f_n = 10 \div 20$ (f_v,f_n are the cutoff frequencies of a track channel) since here it is possible to get the maximum balance between track spacing and recording velocity. Furthermore, the well-defined structure of the definition equation (I) permits a simple estimation of the influence of the operating factors on the information density. There are 3 figures, 2 tables, and 7 references: 2 Soviet and 5 US.

SUBMITTED: September 14, 1960

Legend to Table 1: 1) system; 2) Δf, Mc; 3) method of signal transformation; 4) approximation.

Система 1	Δf Мгц 2	$m_к$	b мм	d мм	$b+d$ мм	v_1 м/сек	ν дв. ед./мм²	Метод преобразования сигнала (рис. 1)
RCA (цветное ТВ)	$0,4\cdot10^{-3}\div1,5$ $1,5\div3,5$	9	1,5	0,76	2,26	6,1	610	А+А'+Б
VERA (BBC)	$0\div0,1$ $0,1\div3$	—	—	—	—	5,1	—	Б+Б'
Bing Crosby	0,19	8*	—	—	0,8	2,5	570	В'
Ampex	4	14	0,25	0,125	0,375	38,1	2100	В'

4 *) Вычислено приблизительно.

Table 1

Card 4/4

GORON, I.Ya.; ARUTYUNOV, M.G.; MARKOVICH, V.D.; PATRUNOV, V.G.; TRAUBENBERG, V.P.

High-speed ferrographic recording of digital data. Elektrosviaz' 16 no.12:26-32 D '62. (MIRA 16:1)

(Telecommunication)
(Printing machinery and supplies)

GORON, Isaak Yevseyevich; KANTOR, L.Ya., otv. red.; NOVIKOV, S.A., red.; SHEFER, G.I., tekhn. red.

[Correction of amplitude-frequency distortions] Korrektirovanie amplitudno-chastotnykh iskazhenii. Moskva, Sviaz'-izdat, 1963. 55 p. (MIRA 16:6)
(Wire broadcasting) (Television)

GORON, Isaak Yevseyevich; KOKORIN, Yu.I., red.

[Construction of skeleton diagrams and level diagrams of radio broadcasting channels] Postroenie skeletnykh skhem i diagramm urovnei radioveshchatel'nykh traktov. Moskva, Izd-vo "Sviaz'," 1964. 23 p. (MIRA 17:7)

PAPERNOV, Lev Zakharovich; GORON, I.Ye., otv. red.; NOVIKOVA, Ye.S., red.

[Level indicators] Indikatory urovnia. Moskva, Sviaz', 1964. 41 p. (MIRA 18:2)

MOLODAYA, Natal'ya Trofimovna; GOHON, I.Ye., otv. red.; TSEYTLIN, F.G., red.

[Acoustical design of radiobroadcasting and television studios] Akusticheskoe proektirovanie radioveshchatel'nykh i televizionnykh studii. Moskva, Izd-vo "Sviaz'," 1964. 111 p. (MIRA 17:11)

GORON, I.Ye., red.; VENGRENYUK, L.I., red.; FUFAYEVA, M.N., red.

[Stereophony] Stereofoniia; informatsionnyi sbornik. Moskva, Sviaz', 1964. 100 p. (MIRA 17:11)

ACC NR: AP7000350 SOURCE CODE: UR/0413/66/000/022/0115/0115

INVENTOR: Goron, I. Ye.; Baranov, Yu. A.; Dembinskiy, V. F.; Merkin, I. Kh.; Pankov, G. A.; Penchuk, N. V.; Smolyanitskiy, V. Z.; Volkov, Yu. D.

ORG: none

TITLE: Electromagnetic flaw detector. Class 42, No. 188737

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 115-116

TOPIC TAGS: flaw detector, magnetic flaw detector, magnetic field ~~configuration, magnetic field configuration recording~~ flaw detection, electromeasuring device, electromagnetic device

ABSTRACT: This Author Certificate introduces an electromagnetic flaw detector containing 1) a primary magnetic flux conductor for magnetizing the inspected article, 2) a secondary magnetic flux conductor for duplicating the magnetic field configuration of the article surface, 3) generators with alternating magnetic field ensuring hysteresis-free transfer of the magnetic field configuration, and 4) magnetic recording heads. To inspect shaped articles, the conductor is clamped to the article with elastic rings stretched over the article. To maintain its cylindrical shape, the secondary conductor is enclosed in a vacuum shell. Orig. art. has: 1 figure.

SUB CODE: 14,09/SUBM DATE: 11Aug65/

Card 1/1 UDC: 620.179.14.08

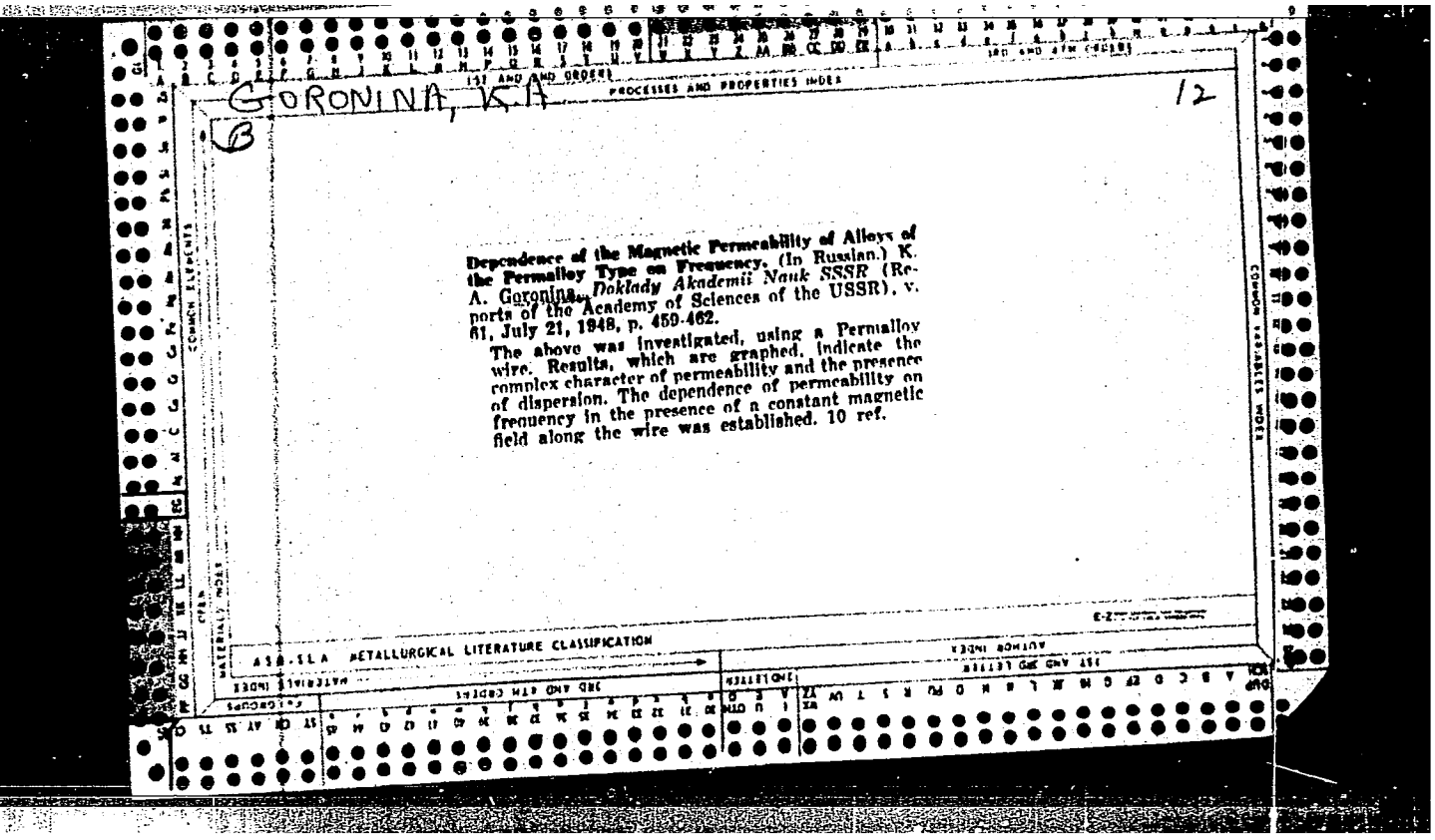
GOROHESKUL', V.S., inzh.

Experience in adjusting and operating the STM-12,000-2 electric motor. Vest. elektroprom. 31 no.8:30-34 Ag '60. (MIRA 15:5)
(Electric motors, Synchronous)

GORONINA, K. A.

"On the Curves of Longitudinal Animation Produced by a Continual Current on a Ferromagnetic Wire," Dokl. AN SSSR, 44, No.6, 1944

Physico-Tech. Inst., Gor'kiy State U.



GORONINA, K.A.

12

Dependence of the Magnetic Permeability of Alloys of the Permalloy Type on Frequency. (In Russian.) K. A. Goronina. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), v. 61, July 21, 1948, p. 459-462.

The above was investigated, using a Permalloy wire. Results, which are graphed, indicate the complex character of permeability and the presence of dispersion. The dependence of permeability on frequency in the presence of a constant magnetic field along the wire was established. 10 ref.

GORONINA, K.A.

USSR/Physics - Magnetic flux FD-1485

Card 1/1 : Pub. 146-8/20

Author : Grachev, A. A.; Goronina, K. A.; Kolachevskiy, N. N.; and Andrianova, I. A.

Title : Experimental investigation of variation of magnetic flux in a cable at reversal of magnetization of one domain

Periodical : Zhur. eksp, i teor. fiz., 27, 313-317, Sep 1954

Abstract : Results of experimental investigation of magnetic flux generated in a single domain of a ferromagnetic cable are outlined. Experimental data concur within 10% accuracy with theoretical computation by S. M. Rytov (ibid, 307-312). Four references.

Institution : Physicotechnical Institute, Gor'kiy State University

Submitted : December 28, 1953

GORONINA, K. A., GRACHEV, A. A. (NIRFI, Gor'kiy)

"Fluctuations During Magnetic Polarity Reversal of Ferromagnetic Materials."

The author calculated the spectral densities of noises and remaining fluctuating even harmonics, appearing during periodical polarity reversal of ferromagnetic materials. The contents of the report may be used for an evaluation of the ultimate sensitivity of magnetic amplifiers. A comparatively small number of reports was delivered on noise physics.

report presented at the All-Union Conference on Statistical Radio Physics, Gor'kiy, 13-18 October 1958. (Izv. vyssh uchev zaved-Radiotekh., vol. 2, No. 1, pp 121-127) COMPLETE card under SIFOROV, V. I.)

9,2571
24,7900

69951

SOV/141-2-4-6/19

AUTHORS: Goronina, K.A. and Grachev, A.A.

TITLE: The Spectrum of the e.m.f. Induced by Periodic Reversal of Magnetisation in Ferromagnetics

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 4, pp 581 - 587 (USSR)

ABSTRACT: The spectrum of the e.m.f. produced during periodic reversal of the magnetisation in ferromagnetics contains harmonics of the magnetisation frequency as well as a continuous spectrum. The latter portion of the spectrum is referred to as the magnetic noise. It is this effect that is considered in the paper. The problem of magnetic noise has been studied by a number of authors (Refs 1-10), both theoretically and experimentally. In particular, in the work of G. Biorci and D. Pescetti (Ref 9), it was found experimentally that the magnitude of the spectral density of magnetic noise and its frequency dependence are in agreement with the magnetic noise as evaluated by the same method as is employed in determining the shot noise in electron tubes. However, some experimental results (Ref 10)

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The Spectrum of the e.m.f. Induced by Periodic Reversal of Magnetisation in Ferromagnetics

appear to contradict the above findings. In view of the above, it was decided to undertake a thorough experimental investigation of the problem. The results obtained from the experiments are illustrated in Figures 1 and 2. Figure 1 shows the noise spectrum density for a ferrite. The axis of abscissae represents the frequency ratio f/F, while the ordinates give the parameter $\sqrt{G/f}$; f is the frequency, F is the magnetisation frequency and G is the spectral density. From Figure 1, it is seen that for a constant f/F, the quantity $\sqrt{G/f}$ is independent of f and F. Such relationship should be observed in the cases when the average value of the magnetic flux for a given magnetic field and the statistic characteristics of random deviations of the flux from the average value are independent of the rate of change of the magnetic field.

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In magnetic materials of high conductivity, the quantity $\sqrt{G/f}$ depends not only on the frequency ratio but for a given f/F it decreases with increasing F; this decrease is less in thin samples than in thick ones (see Figure 2). This phenomenon can be caused by the skin effect. Figure 2 shows the magnetic noise for the armco iron; the upper figure was taken with a sample having a thickness of 3μ, while the lower figure was taken for a strip having a thickness of 110 μ. From Figures 1 and 2, it is seen that the spectral density decreases with decreasing f/F in the region of small f/F. This reduction occurs in the ferrite and iron when $f/F < 30$. From the above it can be concluded that in the region of small f/F, the spectrum of magnetic noise is different from that of the shot noise. Whereas the latter is independent of frequency F, the spectral density of the magnetic noise is zero at zero frequency and then increases with f up to a frequency f_1, which

The Spectrum of the e.m.f. Induced by Periodic Reversal of Magnetisation in Ferromagnetics

is dependent on the magnetisation frequency. At larger values of f/F , the experiments showed (and these are in agreement with the data of Ref 9) that the spectral density is constant and then, with increasing f , it begins to decrease. The shape of the magnetic spectrum has therefore the form indicated in Figure 3a. The spectral density increases as a function of frequency up to a frequency f_1 which is dependent on the magnetisation frequency and varies, depending on the material. At frequencies greater than f_1 but lower than a frequency f_2 , the spectrum has the character of shot noise. Above the frequency f_2 , the spectrum begins to decrease. The correlation function of the magnetic noise is therefore in the form shown in Figure 3b. The spectral density can be described by :

The Spectrum of the e.m.f. Induced by Periodic Reversal of Magnetisation in Ferromagnetics

$$G(f) = \overline{|S(f)|}^2 NF\left[1 - |\varphi(f)|^2\right] \qquad (4)$$

where $S(f)$ is the Fourier expansion of an e.m.f. pulse produced by a single Barkhausen transition,

N is the number of transitions and

$\varphi(f)$ is a certain characteristic function.

At high frequencies f, the quantity $\varphi(f) \ll 1$ and Eq (4) represents the case of shot noise. At $f = 0$, the characteristic function $f(0) = 1$ and the spectral density is zero.

There are 3 figures and 10 references, 4 of which are English and 6 Soviet.

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69951

SOV/141-2-4-6/19

The Spectrum of the e.m.f. Induced by Periodic Reversal of Magnetisation in Ferromagnetics

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radio-physics Institute of Gor'kiy University)

SUBMITTED: March 19, 1959

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30762
S/141/61/004/003/013/020
E192/E382

6.4400
9.2570

AUTHORS: Bershteyn, I.L. and Goronina, K.A.

TITLE: Sensitivity of radio-receiving equipment

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v. 4, no. 3, 1961, pp. 515 - 520

TEXT: The noise characteristics of a high-frequency amplifier are usually determined by a noise figure N or the so-called noise temperature $\Delta T = (N - 1)T_o$ where $T_o = 290\ ^oC$. However, if a system comprises an amplifier and other circuits following the amplifier, the parameters N of the amplifier and the effective passband Π do not completely describe the sensitivity of the system as a whole. For the purpose of analysis, it is assumed that the amplifier is followed by a square detector. The DC component at its output I is proportional to the power at the input of the amplifier, which is equal to the sum of the noise power $P_ш$ and the signal P_c. If P_c is varied from one known value to another

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and the corresponding changes of I are observed, it is possible to determine N for a given amplifier. It should be borne in mind, however, that, in practice, the detection of a signal is not equivalent to the measurement of the quantity I. If the spectral density of noise at a frequency F at the output of the detector is denoted by i_F^2 the mean square noise at the output of the system as a whole for the case of compensation and modulation methods of reception is proportional to

$$\delta i = \sqrt{i_F^2 \Delta F}\Big|_{F=0}$$ where ΔF is the bandwidth at the output of the system which is of the same order as the quantity $1/\tau_H$ (τ_H is the time constant of the output circuit). In order to determine the useful signal at the output of the system, it is assumed that in the absence of a signal at the input of the amplifier, the system contains the noise $P_ш$ and the background radiation noise $P_Ф$. Consequently:

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$$I = \beta_o(P_ш + P_ф) = \beta_o k \Pi\left[(N - 1)T_o + T_ф\right] \qquad (2)$$

where β_o - a constant coefficient for the given equipment. If the signal $P_c \ll P_ш$ and $P_ф$ is applied to the system, I changes by an amount $\Delta I = \beta_o P_c$. If the compensation method of reception is employed, the useful signal at the output is proportional to this quantity. Thus, by comparing ΔI and δi , the threshold signal power is expressed by:

$$P_п = \frac{\delta i}{\beta_o} = \frac{I}{\beta_o}\frac{\delta i}{I} = \left\{k \Pi\left[(N - 1)T_o + T_♦\right]\right\}\frac{\delta i}{I} \qquad (3) .$$

It is seen that the multiplier $\delta i/I$ determines the gain due to the compensation method of reception. In the case of the modulation method, the quantity $P_п$ is also determined by

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Eq. (3), provided an additional coefficient is introduced; this coefficient should depend on the modulation law of the signal. The first factor in Eq. (3) (in brackets) is fully determined by the parameters Π and N of the amplifier and the quantity T_0. On the other hand, the second factor $\delta i/I$ depends on the type of amplifier. In the case of a normal amplifier, this quantity is given by:

4

$$\frac{\delta i}{I} = \sqrt{\frac{2\Delta F}{\Pi}} \qquad (5) .$$

For a single-tuned parametric amplifier, shown in Fig. 1, the above quantity is expressed by:

$$\frac{\delta i}{I} = \sqrt{\frac{2\Delta F}{\Pi}} \sqrt{1 + \frac{4\alpha^2}{(1+\alpha^2)^2}} \qquad (12)$$

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where α is defined by:

$$\frac{1}{\left[1 - (\Delta C)^2/4\pi^2\nu^2C_o^4R^2\right]^2} = \frac{1}{(1 - \alpha^2)^2} \qquad (7) .$$

In the above (see Fig. 1), the capacitance of the circuit changes in accordance with $C = C_o + \Delta C \sin(2\pi\nu t)$, where ν is the pump frequency. By comparing Eqs. (12) and (5), it is seen that for the same values of N and Π the threshold signal is $\sqrt{2}$ times greater in the case of the parametric amplifier than for the normal amplifier. A super-regenerative amplifier operating at the frequency $F_q = 1/T_q$ is also considered and it is shown that for this case the ratio $\delta i/I$ is expressed by:

$$\frac{\delta i}{I} = \sqrt{\frac{2\Delta F}{F_q}} \qquad (20) .$$

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From this it is seen that $\delta i/I$ is $\sqrt{\Pi/F_q}$ times greater for the super-regenerative amplifier than for the normal amplifier. The passband of the super-regenerator Π is substantially larger than F_q. It is seen, therefore, that a super-regenerative amplifier (when combined with the modulation or compensation methods of reception) gives a threshold signal of about two to three times higher than the normal amplifier with the same values of N and Π.
There are 2 figures and 2 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: February 8, 1961

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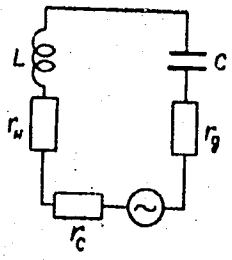
Sensitivity of ....

Fig. 1:



4

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ACC NR: AP6033289 SOURCE CODE: UR/0141/66/009/005/0975/0979

AUTHOR: Goronina, K. A.; Belov, P. K.; Sorokina, E. P.

ORG: Scientific Research Radiophysics Institute at the Gor'kiy University (Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Determination of the dielectric constant from the change of polarization of a reflected wave

SOURCE: IVUZ. Radiofizika, v. 9, no. 5, 1966, 975-979

TOPIC TAGS: dielectric constant, electric polarization, electromagnetic wave reflection, [illegible], phase shift, refractive index, dielectric loss

ABSTRACT: The authors show that since a definite relation exists between the complex reflection coefficient and the dielectric constant, and since a connection exists between the dielectric constant and the change in polarization of the wave reflected from the investigated medium, it is possible to determine the dielectric constant by measuring the polarization of the reflected wave. It is also shown that for an experimental determination of the ratio of the principal axes of the polarization ellipse and their orientation it is possible to use a receiver for linearly polarized waves, and that the optimal angle of incidence is the so-called principal angle, at which the phase shift between the polarization components is equal to 90°. The authors then describe a setup for the measurement of the dielectric constant of water in the millimeter band (Fig. 1). The waves were generated by a backward-wave oscil-

 UDC: 621.317.335.3

ACC NR: AP6033289

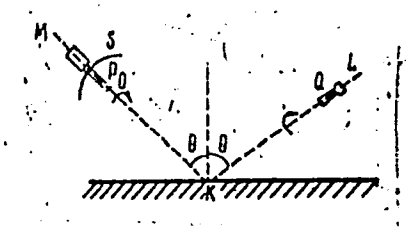

Fig. 1. Block diagram of setup. S - Parabolic mirror, P - rectangular waveguide, O - reflector, Q - receiving horn antenna.

lator and shaped by a parabolic mirror and a rectangular waveguide. The reflected wave is received by a horn antenna and is guided to the receiver by a waveguide operating in the TE_{01} mode. The polarization is measured by rotating the receiving antenna together with the detector. The test procedure is described in detail. The dielectric constant of water was measured at 16C at several wavelengths from 1.2 to 1.6 mm. The values agree well with the theoretical Debye formula for the dielectric constant of water and with measurement results by others. The temperature variation of the refractive index and of the dielectric loss angle were found to deviate from the Debye formula, especially at higher temperatures. Orig. art. has: 3 figures, 4 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 26Jan66/ ORIG REF: 001/ OTH REF: 002

Card 2/2

S/122/61/000/006/007/011
D244/D301

AUTHORS: Sokolovskiy, V.I., Levaynem, A.G., Odintsov, B.P., Goronkov, Ye. S., and Postnikov, V.A.

TITLE: 2-pass cold rolling of tubes

PERIODICAL: Vestnik mashinostroyeniya, no. 6, 1961, 50-52

TEXT: Simultaneous cold rolling of 2 tubes, i.e. 2-pass rolling, has been carried out at the Pervoural'skiy novotrubnyy zavod (Pervoural New Tube Plant) using a PC (RS) 2 1/2" mill. This has resulted in a considerably increased output. Fig. 1 shows the grooves for 2-pass rolling, and Fig. 2 the structure of the shaft carrier.

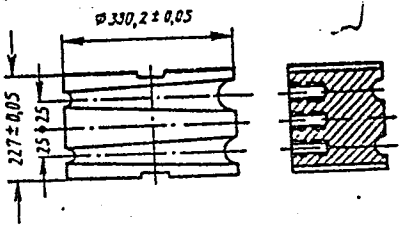

Fig. 1. Grooves for 2-pass rolling.

The roll revolution is transmitted by the gearbox 1 to the stem of plunger 2 and further to plunger 3 through the gearbox pair 4 and 5. The plunger 3 can move relative to plunger

Card 1/3 (For Fig. 2 see next card)

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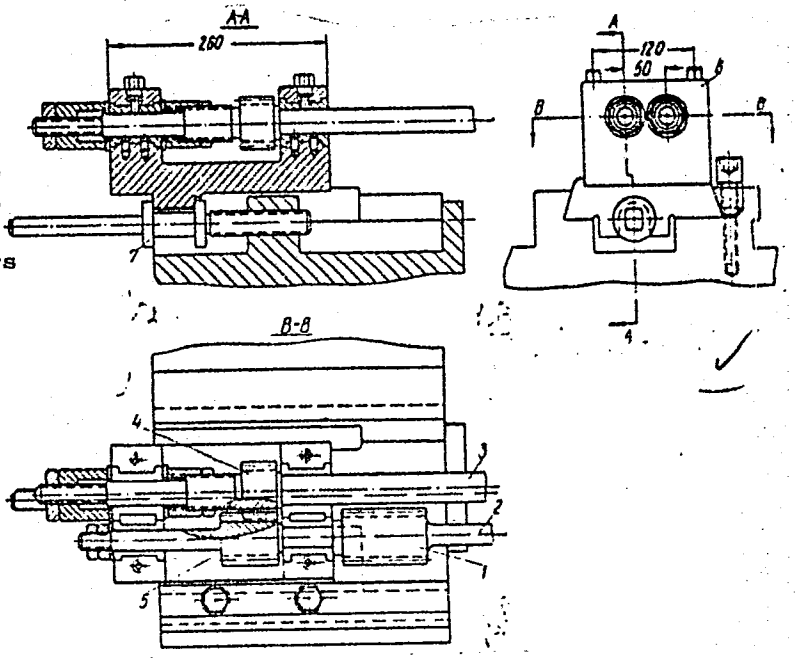
D244/D301

2-pass cold rolling of tubes

Fig. 2. Structure of the shaft carrier.



2 during adjustment of the mill by 25 mm so as to compensate for any inaccuracies in the mandrels. The housing 6, in which the plungers are accomodated, can be moved by means of screw 7 in order to set the mill to the required wall thickness of the tube. It was found that the output of the mill can be still further increased by

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2-pass cold rolling of tubes

installing a more powerful pneumatic carrier drive. Further, in order to prevent flush formation and thus improve the quality of the tubes, rotation of the tube due to mandrel rotation should be prevented and a forward holder should be set up which would ensure gripping and turning of 2 tubes simultaneously. The construction of such a holder is also illustrated. There are 4 figures.

Card 3/3

GORONKOV, Ye.S.

Designing trolley frames for high-capacity bridge cranes. Trudy Ural. politekh.inst. no.104:79-92 '61. (MIRA 14:6)
(Cranes, derricks, etc.)

SOKOLOVSKIY, V.I.; GORONKOV, Ye.S.

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